

CLAIMS

What is claimed is:

1. A method for production of a metallic or metal-containing layer using a precursor on a silicon-or
5 germanium- containing layer of, in particular, an electronic component, in which an intermediate layer is applied to the silicon- or germanium- containing layer before the precursor is used, said intermediate layer forming a diffusion barrier at least for the elements of
10 the precursor which would etch the silicon- or germanium- containing layer and itself being etching-resistant relative to the precursor, wherein the intermediate layer is applied with a thickness of a few atomic layers in an ALD method.
- 15 2. The method as claimed in claim 1, wherein a dielectric is used as the intermediate layer.
3. The method as claimed in claim 2, wherein an Al,
20 Ta, Hf, Ti or Zr oxide is used as the dielectric.
4. The method as claimed in claim 1, wherein a thermostable intermediate layer is used.
- 25 5. The method as claimed in claim 1, wherein the intermediate layer is stabilized in a thermal step.
6. The method as claimed in claim 1, wherein an intermediate layer is used which enables a diffusion in
30 the context of a subsequent silicide process serving for production of the metallic or metal-containing layer.
7. The method as claimed in claim 6, wherein, after the silicide process has been carried out, the metallic
35 or metal-containing layer lying above the intermediate layer and, if appropriate, also the intermediate layer

are/is removed in particular by etching which is selective with respect to the intermediate layer.

5 8. The method as claimed in claim 1, wherein a thermally unstable layer is used, which decomposes in a subsequent, if appropriate further thermal step, in particular in the context of a subsequent silicide process serving for production of the metallic or metal-containing layer.

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9. An electronic component comprising a silicon- or germanium- containing layer and a metallic or metal-containing layer fabricated on the silicon- or germanium- containing layer by the method as claimed in
15 claim 1.

10. The electronic component as claimed in claim 9, wherein the metallic or metal-containing layer is situated above, below or on both sides of the
20 intermediate layer.